

We claim:

1. A vertical take off and landing aircraft toy comprising:

a fuselage;

5 a source of power for a drive motor;

a drive motor having an output shaft, the drive motor receiving power from the source of power;

a control system regulating the operation of said drive motor responsive to a remotely-transmitted control signal;

10 a rotor assembly mounted at a first end of the fuselage and arranged to be driven by said drive shaft of said drive motor; and

a landing gear assembly mounted to a second end of the fuselage; the rotor assembly including:

a rotor head fixed to said output shaft of said motor;

15 a central rotor hub; and

a pair of airfoil blades mounted on either side of said central rotor hub, said central rotor hub being pivoted to said rotor head about a first pivot axis orthogonal to said output shaft and generally aligned with the pair of airfoil blades, and said pair of airfoil blades being pivotally connected to said central rotor hub for pivoting about
20 respective second axes at least generally perpendicular to the first pivot axis and orthogonal to said output shaft.

2. The vertical take off and landing aircraft toy of claim 1 further comprising a pair of stabilizer bars connected to and extending radially from the central rotor hub alternated with the airfoil blades.

25 3. The vertical take off and landing aircraft toy of claim 1 further comprising a pair of connectors interposed between said central rotor hub and the airfoil blades, wherein the connectors are of a double clevis type, such that said second pivot axis is defined between said central rotor hub and said connectors and a third pivot axis, perpendicular to said second pivot axis, is defined between said blades and said connectors.

30 4. The vertical take off and landing aircraft toy of claim 1 wherein said landing gear is rotatable with respect to said fuselage.

5. The vertical take off and landing aircraft toy of claim 1 wherein the landing gear comprises at least three legs extending away from the second end of the fuselage.
6. The vertical take off and landing aircraft toy of claim 1 wherein the fuselage is elongated between the first and second ends.
- 5 7. The vertical take off and landing aircraft toy of claim 6 wherein the elongated fuselage is bullet- or capsule-shaped.
8. The vertical take off and landing aircraft toy of claim 1 further comprising a plurality of fins extending generally radially outwardly from the fuselage, the fins being canted within a range of about 1 to about 10 degrees with respect to a central longitudinal axis of the
10 fuselage.
9. The vertical take off and landing aircraft toy of claim 1 further comprising at least three fins extending generally radially outwardly from the fuselage, the fins being elongated in an elongated direction of the fuselage.
10. The vertical take off and landing aircraft toy of claim 1 wherein the power
15 supply is a rechargeable battery and the drive motor is an electrically powered motor.
11. The vertical take off and landing aircraft toy of claim 10 further comprising at least one reduction gear drivingly coupled between the pinion gear and the rotor drive gear.
12. The vertical take off and landing aircraft toy of claim 1 wherein the motor is an air motor and the fuselage of the aircraft forms a tank for containing compressed air, forming
20 the power supply for said air motor.
13. The vertical take off and landing aircraft toy of claim 1, comprising a second set of airfoil blades, mounted to be rotated about the same axis as said first set of airfoil blades, and a gearbox for driving said first and second sets of airfoil blades in opposite directions.
14. In combination, the vertical take off and landing aircraft toy of claim 1, and a
25 transmitter for transmitting said control signal to said control system for regulating the speed of said motor.